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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/563,383

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EXAMINER

MULLER, BRYAN R

ART UNIT

PAPER NUMBER

3723

MAIL DATE

DELIVERY MODE

11/27/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/563,383	Applicant(s) NAITO ET AL.	
	Examiner Bryan R. Muller	Art Unit 3723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 January 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 January 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>1/5/06, 10/4/07, 10/5/07</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. Figure 10 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: "40a" (line 6 of paragraph 31). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 35Aa (Figures 4, 8 and 9) and 40A (Figures 4-6). Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

4. The disclosure is objected to because of the following informalities:
- a. As discussed supra, the reference number "40a" in paragraph 31 of the specification is not in the Drawings.
 - b. Also discussed supra, reference numbers "35Aa" and "40A" from the Drawings are not found in the Specification. It is assumed by the Examiner that reference number "40", in line 4 and the second occurrence in line 1 of paragraph 27 and line 2 of paragraph 31 should be "40A".

- c. The word "to" in line 10 of paragraph 12 in the specification should be deleted.
- d. Reference number "44" in line 5 of paragraph 34 should be changed to "41".
- e. The word "a" in line 3 of paragraph 40 should be changed to "an".
- f. The phrase "(as shown in Fig. 8)" in line 4 of paragraph 54 should be deleted because the structure being described is not actually shown in Fig. 8. Appropriate correction is required.

Claim Objections

- 5. Claims 14 and 19 are objected to because of the following informalities: lines 7-10 of claims 14 and 19 are unclear. As best understood by the Examiner, the applicant is intending to claim that the adjusting mechanism is configured to be capable of adjusting the opening area of said front suction inlet by moving said cover from a position providing a wide opening area to a position providing a narrow opening area. For the sake of the current office action, the claims will be treated as such, and it is suggested by the Examiner that the applicant amend the claims to have similar wording as recited above to clarify the claims. Appropriate correction is required.
- 6. Claims 15 and 20-24 objected to because of the following informalities: claims 15 and 20-24 all include reference to "said cover", which lacks proper antecedent basis in each of the claims, because the previous claims, from which claims 15 and 20-24 depend, make no reference to a cover. It is suggested that the applicant include the

limitation of "including a cover" (or some equivalent thereof) to claims 15 and 20-24 or to claims 13, 17 and 18 or 13 and 16, from which claims 15 and 20-24 depend.

Appropriate correction is required.

7. Claims 15 and 20 are objected to because of the following informalities: lines 2-5 of claims 15 and 20 are unclear. As best understood by the Examiner, it is suggested that the applicant amend lines 2-5 of claims 15 and 20 to read: "wherein, said adjusting mechanism includes a cover having an upper end portion attached to said suction in let main body and a lower rotatable end portion, which may be contacted with and pushed by the wall or furniture, such that the lower end portion is rotated to narrow the opening area of said front suction inlet". For the sake of the current office action, the claims will be treated as such, and it is suggested by the Examiner that the applicant amend the claims to have similar wording as recited above to clarify the claims (which will also overcome the objection regarding proper antecedent basis of the term "said cover" for claims 15 and 20). Appropriate correction is required.

8. Claim 25 is objected to because of the following informalities: the word "protrude" in line 12 of claim 25 should be changed to "protrudes". Appropriate correction is required.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 26-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 26-28 all have preambles, that appear to be independent claims, and all indicate that a vacuum cleaner is being claimed. However, claims 26-28 also all refer to independent claims 13, 16 and 25, respectively, which are all claims reading on a suction inlet unit. Thus, it is unclear if the applicant intends for claims 26-28 to be independent claims, claiming vacuum cleaners having specific suction inlet units, or intending for claims 26-28 to be dependent claims providing electric vacuum cleaners to the suction inlet units, as claimed in claims 13, 16 and 25, respectively. For the sake of the current office action, as best understood by the Examiner, it will be assumed that the applicant is intending to provide claims 26-28 as independent claims, each reading on a vacuum cleaner comprising the suction inlet unit of claims 13, 16 and 25, respectively. If this is the intent of the applicant, for purposes of clarity, it is suggested that the applicant include all limitations of claims 13, 16 and 25, completely written out, to claims 26-28, respectively and remove reference to previous claims. Further, if the applicant does intend claims 26-28 to be independent claims, the applicant will owe additional fees for a total of 6 independent claims, whereas only 3 independent claims were indicated on the previously filed Fee Worksheets (FORM PTO-875). In the case that the claims are intended to be dependent claims, depending from claims 13, 16 and 25, respectively, claims 26-28 would be objected to for having preambles that do not correspond with the claims form which they depend, as well as for failing to further limit the claims from which they depend, because the electric

vacuum cleaner is not considered to be a part of the suction inlet unit, and no additional limitations are provided in claims 26-28 for the suction inlet unit.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 13, 14 and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Lessig, III et al. (5,084,934).

13. In reference to claim 13, Lessig discloses a suction inlet unit (best shown in Fig. 11) having a main body (24), a bottom suction inlet (directly below brush wheel 30), a front suction inlet (directly in front of wheel 30 and below flexible cover 28) formed continuously with said bottom suction inlet in the front of said suction inlet main body, and an adjusting mechanism for moving at least one part of a wall section (28) forming said front suction inlet so as to change an opening area of said front suction inlet, wherein said adjusting mechanism is configured to decrease the opening area of said front suction inlet when it is contacted with and pushed by a wall or furniture (136). As shown in Fig. 3, the front wall (28) extends down in front of the brush (30) and is spaced a small distance from the surface of the rotating brush (Col. 10, lines 64-68). Also shown, in an unbiased position in Fig. 3, the front wall (28) has a lower end portion that is approximately horizontally aligned with the upper portion of opening (70). However,

when engaged by a wall, as shown in Fig. 11, and flexed rearwardly, it is inherent that the lower end portion of the flexible front wall will also move down toward the floor, as shown in Fig. 11, wherein the lower end portion is clearly shown as being approximately horizontally aligned with a middle of the opening (70), which is below the upper portion of opening (70). Therefore, the adjusting mechanism is configured to decrease the opening area of said front suction inlet, by flexing the front wall (28) inward towards the brush (30) and downward toward the floor when it is contacted by a wall or furniture.

14. In reference to claim 14, Lessig further discloses that the at least one part of the wall section forming said front suction inlet includes a cover disposed to cover one part of an opening inlet formed in the front of said suction inlet main body, and said adjusting mechanism is configured to be capable of adjusting the area of the opening of said front suction inlet by moving said cover from a position providing a wide opening area (Fig. 3) to a position providing a narrow opening area (Fig. 11).

15. In reference to claim 26, Lessig further discloses an electric vacuum cleaner comprising the suction inlet unit, as discussed supra.

16. Claims 13-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Combest (4,254,525).

17. In reference to claim 13, Combest discloses a suction inlet unit having a main body (20), a bottom suction inlet (below the front edge surface adjacent cover 70), a front suction inlet (in front of the front edge below cover 70) formed continuously with said bottom suction inlet in the front of said suction inlet main body, and an adjusting

mechanism for moving at least one part of a wall section (70) forming said front suction inlet so as to change an opening area of said front suction inlet, wherein said adjusting mechanism is configured to be inherently capable of decreasing the opening area of said front suction inlet when it is contacted with and pushed by a wall or furniture (136).

Although the suction inlet unit of Combest is intended to be used underwater and the covers (70 and 100) are intended to be set in place. The covers (70 and 90) on the suction inlet unit of are inherently capable being contacted and pushed by a wall, even when used underwater, which would inherently cause the cover (70) to rotate down towards the surface, decreasing the opening area of said front suction inlet.

18. In reference to claim 14, Combest further discloses that the at least one part of the wall section forming said front suction inlet includes a cover disposed to cover one part of an opening inlet formed in the front of said suction inlet main body, and said adjusting mechanism is configured to be capable of adjusting the area of the opening of said front suction inlet by moving said cover from a position providing a wide opening area to a position providing a narrow opening area.

19. In reference to claim 15, Combest further discloses that said adjusting mechanism includes a cover (70) having an upper end portion attached to said suction inlet main body (at pivot 82) and a lower rotatable end portion, which may be contacted with and pushed by a wall or furniture, such that the lower end portion is rotated to narrow the opening area of said front suction inlet.

20. Claims 16, 17, 19, 20 and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Morita et al. (JP 2003-093282).

21. In reference to claim 16, Morita discloses a suction inlet unit comprising: a suction inlet main body (21) having a suction chamber (25) with a bottom suction inlet (23a), a rotary cleaning body (27) provided rotating in said suction chamber and having a cleaning member, a front suction inlet (23b) formed continuously with said bottom suction inlet in the front of said suction inlet main body, and an adjusting mechanism (24) for adjusting at least one part of a wall section forming said front suction inlet so as to make one part of said rotary cleaning member protrude forwards (shown in Fig. 7) or not protrude forwards through said front suction inlet, wherein: when said adjusting mechanism is contacted with and pushed by a wall or furniture, one part of said rotary cleaning body protrudes forwards through said front suction inlet (shown in Fig. 7).

22. In reference to claim 17, Morita further discloses that the cleaning member of said rotary cleaning body is configured to rotate from a front to a back position to clean a cleaning surface (shown by direction arrow in Fig. 4).

23. In reference to claim 19, Morita further discloses that the at least one part of the wall section forming said front suction inlet includes a cover (24) disposed to cover one part of an opening inlet forming in the front of said suction inlet main body, and said adjusting mechanism is configured to be capable of adjusting the area of the opening of said front suction inlet by moving said cover from a position providing a wide opening area to a position providing a narrow opening area.

24. In reference to claim 20, Morita further discloses that said adjusting mechanism includes a cover (24) having an upper end portion attached to said suction inlet main body and a lower rotatable end portion, which may be contacted with and pushed by a wall or furniture, such that the lower end portion is rotated for protruding at least one part of the said cleaning member ahead of said front suction inlet.

25. In reference to claim 25, Morita further discloses that the adjusting mechanism is configured to adjust the opening area size of said front suction inlet wherein said adjusting mechanism is configured to adjust the opening area of said front suction inlet so that at least one part of the cleaning member of said rotary cleaning body protrudes ahead of said suction inlet main body through said front suction inlet when a front of said suction inlet main body is contacted with and pushed by a wall or furniture.

Claim Rejections - 35 USC § 103

26. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

27. Claims 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morita et al. (JP 2003-093282).

28. In reference to claims 27 and 28, Morita discloses the suction inlet unit of claims 16 and 25, as discussed supra, which is intended for use with a vacuum cleaner. It is very well known in the art that most vacuum cleaners are electric. Therefore, it would

have been obvious to one of ordinary skill in the art at the time the invention was made to provide an electric vacuum cleaner to attach to the suction inlet unit of Morita, to provide the suction to the inlet unit in order to use the suction inlet unit as intended.

29. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Morita et al. (JP 2003-093282) in view of Krasznai et al. (4,912,805).

30. Morita discloses the suction inlet unit, as discussed supra, and further discloses that the rotary cleaning body (27) includes a pivot section and a plurality of cleaning members with different lengths (Figures 6-10) provided along a circular direction around the pivot section with spacing. However, Morita fails to disclose that the longer cleaning members are configured more flexible than the shorter cleaning members. Krasznai discloses a rotary brush for vacuum having shorter and longer cleaning elements (70b and 70a, respectively) and teaches that the shorter bristles are stiff for agitating a carpeted surface and the longer bristles are softer for contacting a hard surface. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the longer bristles softer, and more flexible than the shorter bristles on the rotary brush of Morita, as taught by Krasznai, so that the short stiff bristles can agitate carpet surfaces and the longer, softer, more flexible bristles can contact hard surfaces.

31. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Morita et al. (JP 2003-093282) in view of Kobayashi et al. (2004/0083574).

32. Morita discloses the suction inlet unit, as discussed supra, and further discloses that the body is formed from a resin (paragraph 13 of machine translation), but Morita fails to disclose that the resin is soft. Kobayashi discloses a similar suction inlet unit and teaches that the portion of the adjusting mechanism that contacts walls or furniture should be formed from a soft material (paragraph 13), which will prevent damage to the walls or furniture when the adjusting mechanism contacts them. Therefore, it further would have been obvious to one of ordinary skill in the art at the time the invention was made to form at least the cover portion (24) of the adjusting mechanism of Morita from a resin (as disclosed by Morita) that is soft, as taught by Kobayashi, to prevent damage to walls and furniture during use.

33. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Morita et al. (JP 2003-093282) in view of Krasznai et al. (4,912,805) as applied to claim 18 and further in view of Kobayashi et al. (2004/0083574).

34. As discussed supra, Morita and Krasznai disclose the suction inlet unit of claim 18, and also discussed supra, it would have been obvious to one of ordinary skill in the art at the time the invention was made to form at least the cover portion (24) of the adjusting mechanism of Morita from a resin (as disclosed by Morita) that is soft, as taught by Kobayashi.

35. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Morita et al. (JP 2003-093282) in view of Norrick (2,273,883).

36. Morita discloses the suction inlet unit, as discussed supra, but fails to disclose that the surface of the cover includes convex and concave portions. Norrick discloses a vacuum cleaner having a bumper plate (21) to protect walls and furniture from damage when the vacuum contacts them. Norrick further discloses that convex and concave portions are disposed on the surface of said bumper plate so that no sharp edges will be presented and to reduce the area of contact between furniture and the bumper plate (Col. 2, lines 37-44). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to dispose concave and convex portions on the cover (24) of Morita, which is designed to contact walls and furniture, to eliminate any sharp edges and to minimize the contact surface between the cover and the walls or furniture, as taught by Norrick, to minimize, or completely prevent damage to the walls or furniture during use.

37. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Morita et al. (JP 2003-093282) in view of Krasznai et al. (4,912,805) as applied to claim 18 and further in view of Norrick (2,273,883).

38. As discussed supra, Morita and Krasznai disclose the suction inlet unit of claim 18, and also discussed supra, it would have been obvious to one of ordinary skill in the art at the time the invention was made to dispose concave and convex portions on the cover (24) of Morita.

Conclusion

39. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ross (2,324,111). Wood (2,659,925), Ahlf et al. (4,416,034) and Platt (4,499,628) all disclose suction inlet units having similar structure and/or function as the applicant's claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bryan R. Muller whose telephone number is (571) 272-4489. The examiner can normally be reached on Monday thru Thursday and second Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph J. Hail III can be reached on (571) 272-4485. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Bryan R Muller/
Examiner, Art Unit 3723
11/9/2007